

REMARKS

Amendments

The specification is amended at page 19 to correct an obvious typographical error in the PO/PA ratio. Specifically, the ratio is corrected to be between 55/45 and 90/10, rather than between 55/45 and 90/120. The error is obvious since it is evident that the two numbers of the ratio are intended to total 100.

Claim 23 is cancelled. Claim 1 is amended to delete superfluous language from the preamble. Claim 1 is also amended to further clarify layer (2). Specifically, the claim is amended to recite that layer (2) is a polymeric layer wherein the polymer consists of a graft copolymer having a polyolefin backbone and polyamide blocks. The graft copolymer comprises the polyolefin backbone and at least one polyamide graft wherein the grafts are attached to the polyolefin backbone by the residues of an unsaturated monomer (X) having a functional group capable of reacting with a polyamide having an amine end group. The residues of the unsaturated monomer (X) are attached to the backbone by grafting or copolymerization via its double bond. Similar amendments are made to claim 9.

Claim 5 is amended to clarify that it is the polyolefin backbone containing X which is chosen from ethylene/maleic anhydride copolymers and ethylene/alkyl(meth)acrylate/maleic anhydride copolymers.

Claim 7 is amended to specify that layer (2) forms the inner layer in contact with the stored or transported fluid. New claim 25 recites subject matter deleted from claim 7, i.e., that layer (3) forms the inner layer intended to be in contact with the stored or transported fluid. Similarly, claim 8 is amended to recite that layer (2) forms the inner layer of the tube, which is intended to be in contact with the transported fluid. New claim 26 recites subject matter deleted from claim 8, i.e., that layer (3) forms the inner layer intended to be in contact with the stored or transported fluid. Claim 8 is also amended to correct the spelling of “an.”

Claim 21 is amended to clarify that first layer (1) comprises a blend of a polyamide (A) and at least one copolymer having polyamide blocks and polyether blocks.

New claim 24 is similar to claim 6, but is dependent on claim 2. Thus, claim 24

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provides antecedent basis for layer (3) recited in claim 25. New claims 27 and 28 are directed to further aspects of the invention and are supported throughout the disclosure. See, e.g., page 12, lines 27-29, page 19, lines 6-8, and Example 1.

Objection

Claim 8 is objected to due to a typographical, which is corrected by the above amendments. Withdrawal of the objection is respectfully requested.

Rejection under 35 USC 112, second paragraph

Claims 1, 5, 7-9, 21, and 23 are rejected as allegedly being indefinite. This rejection is respectfully traversed.

With respect to claim 1, it is asserted that the recitation in the preamble of “based on polyamides and graft copolymers having polyamide blocks” is indefinite. While applicants respectfully submit the language is sufficiently clear when read in the context of the overall claim and the specification, the language has been deleted for purposes of furthering prosecution.

In addition, the language of claim 1 regarding unsaturated monomer X is sufficiently clear when read in light of the specification. In any event, claim 1 is amended to further clarify the recitation of unsaturated monomer X. This monomer is attached to the polyolefin backbone by grafting or copolymerization. See, e.g., page 15, lines 8-11. The residues of monomer X also provide the sites for grafting the polyamide with an amine group. See, e.g., page 4, lines 1-3, page 15, lines 8-11, and page 18, lines 26-29.

As noted above, is amended to clarify that it is the polyolefin backbone containing X which is chosen from ethylene/maleic anhydride copolymers and ethylene/alkyl(meth)acrylate/maleic anhydride copolymers. See, e.g., page 17, lines 3-4.

Claims 7-8 are amended above to delete “of graft copolymers.” Also, claim 8 is amended to delete reference to layer 3. Claim 9 is amended to clarify the graft copolymer having polyamide blocks. As recited in the claim, the graft copolymer consists of a polyolefin backbone, residues of an unsaturated monomer (X), and at least one polyamide

graft. Furthermore, claim 21 is amended to specify that it is layer (I) which comprises a blend of a polyamide (A) and at least one copolymer having polyamide blocks and polyether blocks. Finally, claim 23 is cancelled.

In view of the above remarks, withdrawal of the rejection is respectfully requested.

Rejection under 35 USC 102(e) in view of Schmitz et al.

Claims 1, 2, 4-18, and 21-23 are rejected as allegedly being anticipated in view of Schmitz et al. (US 6,794,048). This rejection is respectfully traversed.

Schmitz et al. (US '048) disclose a multilayer composite that comprises a polyamide layer and a polyolefin layer. These layers are joined by a bonding layer which does not consist of a functionalized polyolefin. The composite comprises: (I) a layer I of a polyamide molding composition; (II) a layer II of a bonding agent comprising at least 50% by weight, of a mixture of a) from 30 to 70 parts by volume of polyamide, and b) from 70 to 30 parts by volume of polyolefin, the sum of the parts by volume being 100, wherein at least some of the polyamide is present in the form of a polyamide-polyolefin graft copolymer or as a highly branched polyamine-polyamide copolymer; and optionally (III) a layer of a polyolefin molding composition. See column 1, line 40 - column 2, line 2.

Thus, it is apparent that the layer (II) of the composite, i.e., the bonding agent layer, comprises at least 50 wt.% of a mixture of polyamide and polyolefin. Reference to this mixture can be found throughout the disclosure. See, e.g., column 3, lines 6-12. Further, as noted above, US '048 specifically discloses at column 1, lines 40-43 that the bonding layer does not consist of a functionalized polyolefin.

US '048 does not disclose a multilayer structure having a polymeric layer wherein the polymer consists of a graft copolymer having polyamide blocks. Nor is there any disclosure or suggestion that would lead one of ordinary skill in the art to select a polymeric layer wherein the polymer consists of a graft copolymer comprising a polyolefin backbone, at least one polyamide graft, and residues of an unsaturated monomer X which provide the sites of attachment for the at least one polyamide graft to the polyolefin backbone.

In view of the above remarks, it is respectfully submitted that US '048 fails to
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anticipate applicants claimed invention. Withdrawal of the rejection is respectfully requested.

Rejection under 35 USC 103(a) in view of Schmitz et al.

Claim 3 is rejected as allegedly being obvious in view of Schmitz et al. (US '048). This rejection is respectfully traversed.

The disclosure of Schmitz et al. is discussed above. The disclosure fails to provide any suggestion that would lead one to a multilayer structure having a polymeric layer wherein the polymer consists of a graft copolymer having polyamide blocks. Nor is there any suggestion that would lead one of ordinary skill in the art to select a polymeric layer wherein the polymer consists of a graft copolymer comprising a polyolefin backbone, at least one polyamide graft, and residues of an unsaturated monomer X which provide the sites of attachment for the at least one polyamide graft to the polyolefin backbone.

In view of the above remarks, it is respectfully submitted that US '048 fails to render obvious applicants claimed invention. Withdrawal of the rejection is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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